



Outcomes Pharmaceutical Health Care™

Health & Human Services
Appropriations Subcommittee

02.27.2003

Market Trends

- ◆ Aging population
- ◆ Increased FDA approval process
- ◆ Drugs treating a wider variety of conditions
- ◆ Direct to consumer advertising

...all leading in increased medication use

Market Facts

◆ More physicians are turning to medication as their primary treatment approach

- ◆ Physician prescribing has increased 59% over the past 15 years
- ◆ Physicians are 43% more likely to prescribe multiple drugs today than they were in 1985

Burt, C.W. "National trends in use of medications in office-based practice, 1985-1999." *Health Affairs*, July/August 2002

Market Facts

- ◆ Many physicians are insulated from information on drug product costs
 - ◆ 72% of doctors remained “unaware of drug costs,” even after receiving an eight-page pocket guide that outlined average wholesale prices for more than 100 commonly used drugs

Korn, L.M. et al. “Improving physicians’ knowledge of the costs of common medications and willingness to consider costs when prescribing.” *Journal of General Internal Medicine*, January 2003

Market Facts

- ◆ As drug prescribing has increased, so have the costs associated with medication waste
 - ◆ Adverse drug reactions associated with the misuse of prescription drugs are widespread. They reduce the quality of health care received by millions of people and add as much as \$100 billion a year to health care costs

US Department of Health and Human Services, Office of the Inspector General, August 1997

Medication Waste

- ◆ Medication waste occurs whenever:
 - A high cost medication is used when a lower cost alternative was available
 - A patient is non-compliant with their prescribed regimen
 - A patient requires additional medical treatment due to a side effect or reaction to a medication
 - A medication fails to achieve the intended results

A Growing Problem

◆ "Health Problems related to the inappropriate use of pharmaceuticals costs the US health care system \$76.6 billion annually"

- Archives of Internal Medicine

Johnson, JA and Bootman JL, "Drug Related Morbidity and Mortality", Vol. 155, October 1995

A Growing Problem

◆ “Health Problems related to the inappropriate use of pharmaceuticals costs the US health care system **\$177 billion** annually”

- **Journal of the American Pharmaceutical Association**

Ernst, FR and Grizzle AJ, “Drug-Related Morbidity and Mortality: Updating the Cost-of Illness Model”, Vol. 41, March/April **2001**.

A Growing Problem

◆ Hospital Admissions

- 1995 \$47 billion
- 2000 \$121.5 billion

◆ Physician Visits

- 1995 \$7.5 billion
- 2000 \$13.8 billion

◆ Deaths

- 1995 144,000 deaths
- 2000 218,000 deaths

Johnson, JA and Bootman, JL, "Drug Related Morbidity and Mortality", Archives of Internal Medicine, Vol. 155, October 1995. And Ernst, FR and Grizzle AJ, "Drug-Related Morbidity and Mortality: Updating the Cost-of Illness Model", Journal of the American Pharmaceutical Association, Vol. 41, March/April 2001.

A Growing Problem



For every **\$1** spent
on prescriptions...

...we spend another
\$0.90 on what went
wrong with the
prescriptions.



A Growing Problem



For every **\$1**
spent on
prescriptions...

...we spend
another **\$1.60** on
what went wrong
with the
prescriptions.

Ernst, FR and Grizzle AJ, "Drug-Related Morbidity and Mortality: Updating the Cost-of Illness Model", Journal of the American Pharmaceutical Association, Vol. 41, March/April 2001.

The Outcomes™ Approach

- ◆ Encompass the skills of community pharmacists to...
 - Assist physicians to prescribe according to established guidelines
 - Assist consumers to get the best possible results from their medications, at the lowest possible cost, with minimal complications

The Outcomes™ Approach

- ◆ Structure alternative payment system for participating pharmacies...
 - Reimbursement based on ability to provide a defined set of professional services rather than solely on volume of medication dispensed
 - Requires procedural training of pharmacists
 - Requires documentation of service provision
 - Provides reporting mechanism to payor

The Outcomes™ Approach

◆ City of Ames Employee – Medicap Pharmacy

- Patient was refilling a prescription for tamoxifen
- Pharmacist noted patient was not filling the prescription on time – missing an average of 20 doses per month
- Pharmacist discussed situation with patient and learned the directions were 1 tablet twice daily, and patient reported frequently forgetting evening dose
- Pharmacist researched that this medication may be taken 2 tablets once daily with equal efficacy and contacted the physician to recommend a change of the directions. The physician agreed
- Upon follow-up the patient reported being fully compliant

The Outcomes™ Approach

◆ Aegon Employee – Drug Town Pharmacy

- Patient presented a prescription for Coreg®
- With patient's permission, pharmacist contacted physician about lower cost alternative (Tenormin®) which was available in a generic version
- Physician authorized the conversion
- Upon follow-up the patient reported no side effects or complications
- Pharmacist was compensated \$22 for professional services rendered
- Intervention resulted in \$1,110 per year in drug cost savings

Estimated Cost Avoidance (ECA) Model

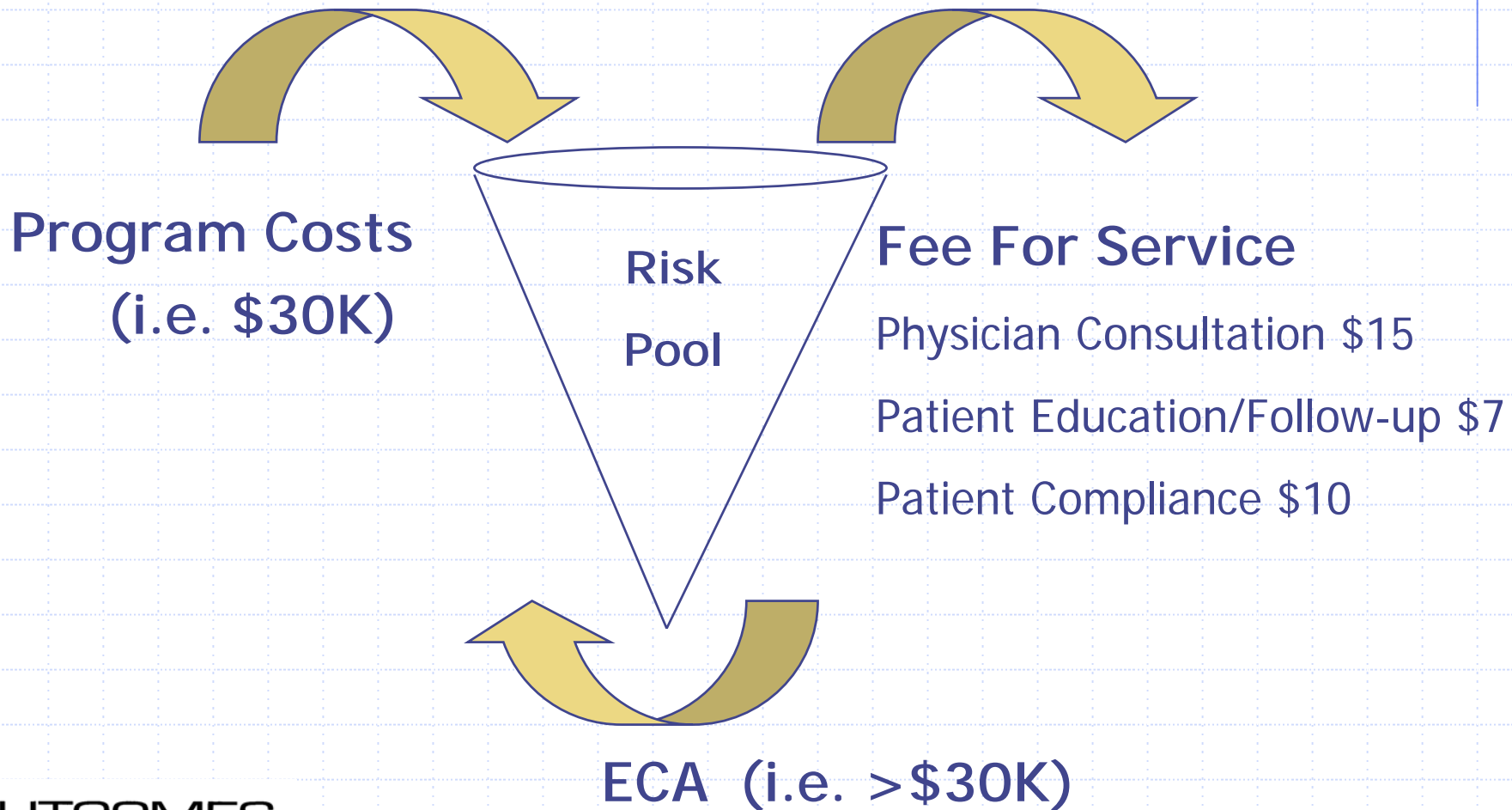
- ◆ Each intervention includes an estimation of the resulting avoided health care utilization
 - Level 7 – Life Threatening
 - Level 6 – Hospital Admission
 - Level 5 – Emergency Room Visit
 - Level 4 – Additional Prescription Order
 - Level 3 – Additional Physician Visit
 - Level 2 – Drug Product Costs
 - Level 1 – Improved Quality of Care

Estimated Cost Avoidance (ECA) Model

◆ Audit/Quality Assurance Process

- Pharmacist selects 1 of 7 ECA levels
- QA Inc. provides claims review/quality assurance
 - ◆ National Reputation for DUR services
 - ◆ Provides DUR services for Iowa Medicaid
 - ◆ Reviews intervention claims according to standard procedures and assures that each claim of ECA is "reasonable and foreseeable"
 - ◆ Final ECA figures are reported back to payor

Estimated Cost Avoidance (ECA) Model



Network Management

◆ Pharmacy Report Cards

◆ Pharmacy Comparative Reports

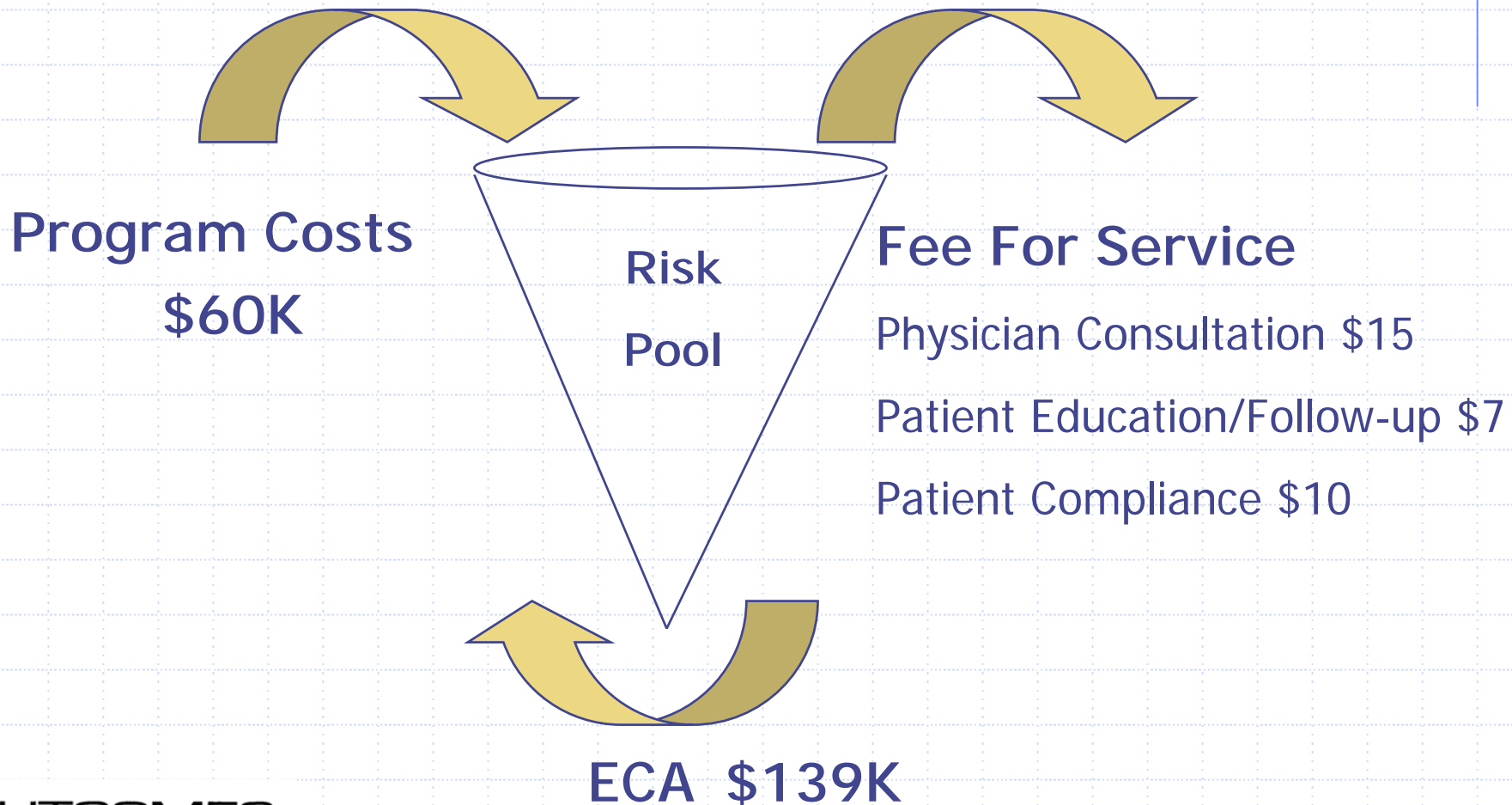
ENCOUNTER STATISTICS			
Description	Amount	Percent	Score
Total Prescriptions Filled (Outcomes Program Only)	1,000		
Total Encounter Claims submitted			
Total Estimated Cost Avoidance (ECA)	\$6,200		
Formulary Encounters	40	4.0%	80
Patient Education & Follow-up Encounters	250	25.0%	83
Indications, Safety, and Efficacy Encounters	20	2.0%	80
Compliance Encounters	5	0.5%	20
ECA per Prescription Filled	\$6.20		73
Patient or Prescriber Refusal Encounters			
Composite Performance Score (this period)	75	Less than 25 25 -50 50-75 75 or greater	Poor Sub-standard Standard Excellent
Composite Performance Score (last period): NA			
Change in Composite Performance Score:.....NA			

	Total Prescriptions	Total Encounter Claims	% of Formulary Management	% Patient Education/Follow up	% Indications, Safety, & efficacy	% Compliance	\$ ECA Per Prescription	% Patient/Prescriber Refusals	Composite Performance Score	
The Prescription Shoppe	16	7	18.8%	37.5%	0.0%	0.0%	\$ 23.25	0.0%	210.0	Excellent > 75
Medicap Pharmacy (Coralville)	38	13	13.2%	21.1%	0.0%	0.0%	\$ 20.68	0.0%	163.9	
Clarks Pharmacy	102	33	12.7%	19.6%	0.0%	0.0%	\$ 17.66	0.0%	146.1	
Hy-Vee Pharmacy #2 (1285)	102	43	4.9%	37.3%	0.0%	0.0%	\$ 7.10	6.9%	94.3	
Center Point Family Pharmacy	50	13	4.0%	18.0%	4.0%	0.0%	\$ 9.58	0.0%	89.9	Standard 50 - 75
Apple Pharmacy	88	25	4.5%	21.6%	2.3%	0.0%	\$ 7.78	0.0%	81.0	
Reutzel Pharmacy Inc.	101	8	2.0%	4.0%	2.0%	0.0%	\$ 11.55	0.0%	73.6	
Shepley Snyder Pharmacy	146	41	6.2%	21.2%	0.7%	0.0%	\$ 5.49	0.0%	69.2	
Northwest Medical Clinic Pharmacy	105	19	3.8%	11.4%	2.9%	0.0%	\$ 6.89	0.0%	65.9	Sub-standard 25 - 50
Drug Town Pharmacy #6 (7019)	132	43	4.5%	27.3%	0.8%	0.0%	\$ 4.46	0.0%	65.5	
Drug Town Pharmacy # 7026	303	9	2.0%	1.0%	0.0%	0.0%	\$ 6.73	0.0%	40.6	
Blairs Ferry Family Pharmacy	23	5	8.7%	13.0%	0.0%	0.0%	\$ -	0.0%	39.1	
Tipton Snyder Drug	46	9	0.0%	32.6%	0.0%	0.0%	\$ -	0.0%	32.6	Poor < 25
Amana Society Pharmacy	21	6	0.0%	28.6%	0.0%	0.0%	\$ -	0.0%	28.6	
Drug Town Pharmacy # 7020	537	61	1.3%	10.1%	0.0%	0.0%	\$ 2.62	0.7%	27.8	
Fifth Avenue Pharmacy	68	9	1.5%	11.8%	0.0%	0.0%	\$ 1.10	5.9%	27.6	
Liberty Pharmacy	68	12	1.5%	16.2%	0.0%	0.0%	\$ 0.79	1.5%	26.0	
Drug Town Pharmacy # 7024	349	60	1.1%	4.3%	0.3%	0.0%	\$ 3.46	0.0%	25.9	
Hy-Vee Pharmacy #2 #1055	63	14	0.0%	22.2%	0.0%	0.0%	\$ -	3.2%	25.4	
A Avenue Pharmacy	37	7	2.7%	10.8%	0.0%	0.0%	\$ -	5.4%	24.3	
Drug Town Pharmacy # 7022	315	20	1.3%	4.8%	0.3%	0.0%	\$ 0.60	0.3%	12.9	
Drug Town Pharmacy # 7025	1189	53	0.8%	3.7%	0.0%	0.0%	\$ 0.43	0.0%	8.1	

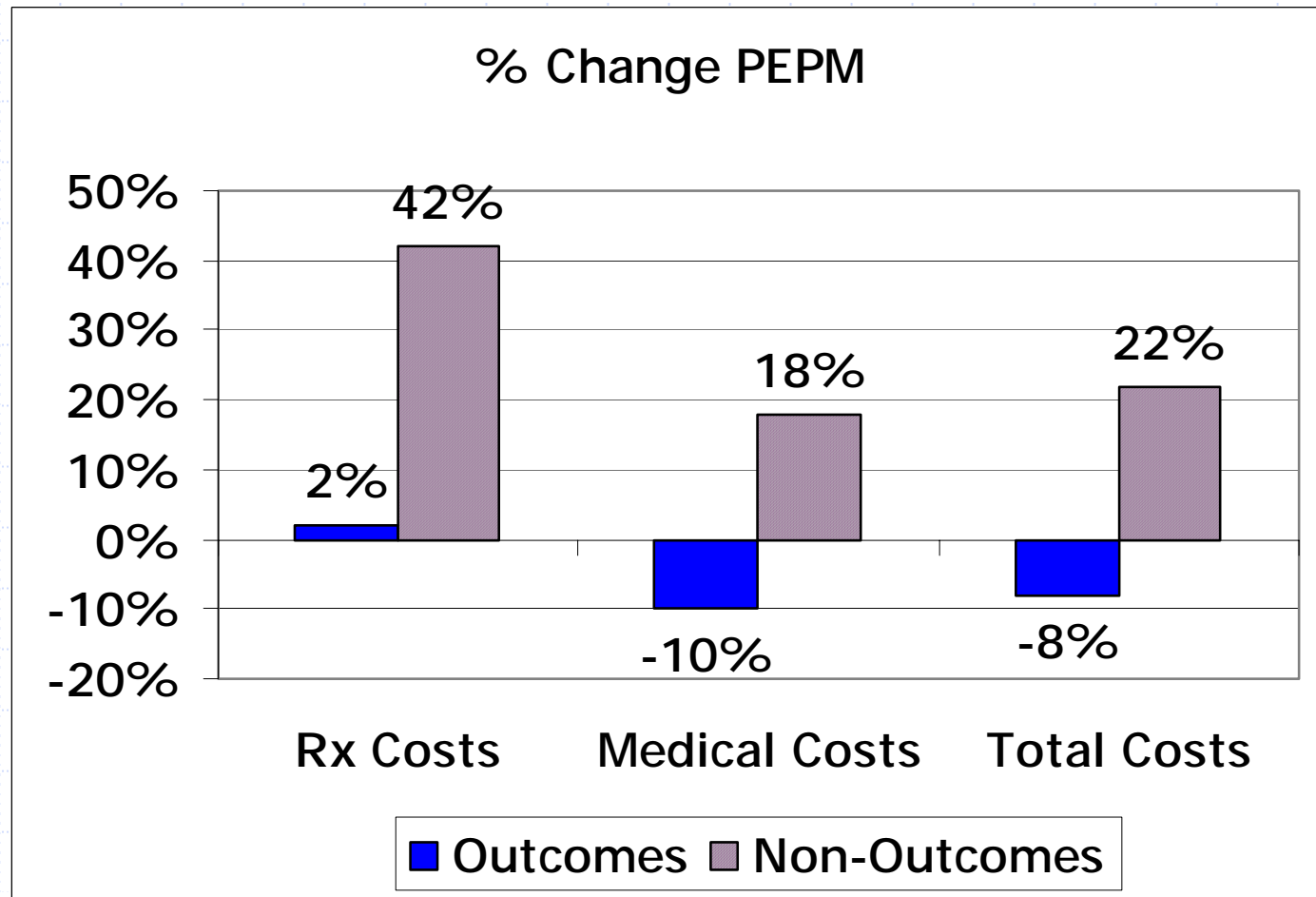
Employer's Story: One Year Results

- ◆ Cedar Rapids area employer consortium
- ◆ Enrolled a portion of its members in an Outcomes™ program
- ◆ Maintained other members in a traditional program
- ◆ Outcomes™ measured impact via the ECA model
- ◆ Employer consortium measured impact via actual costs

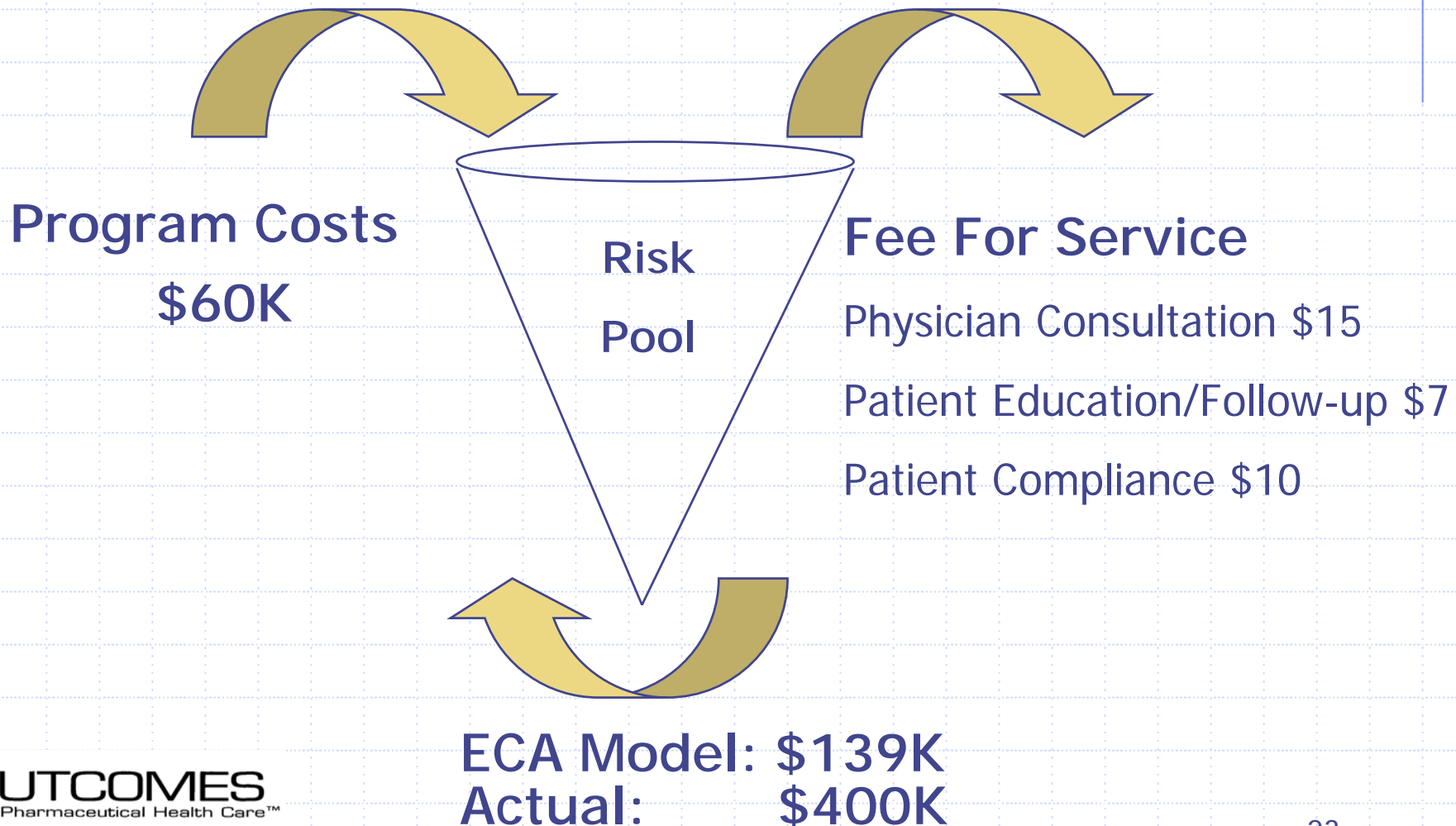
Results From ECA Model



Results From Actual



ECA Model vs. Actual



Q&A

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